

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: L. Hierro, et al.

SERIAL No. Unassigned

EXAMINER: Unassigned

FILED: Herewith

GROUP NO.: Unassigned

TITLE: ROLLER ELEMENT FOR HARDCOPY APPARATUS

Attorney Docket No.: 60003207-2

Assistant Commissioner For Patents  
Washington, D.C. 20231

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JULY 26, 2001 (Date of Deposit)

Deirdre Curran  
Name  
Deirdre Curran  
Signature

PRELIMINARY AMENDMENT

Dear Sir:

Please amend the application as follows:

In the Claims

Please amend the claims as follows:

1. (Amended) A roller element which is arranged to be rotatably mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, wherein, as the media advances, said one or more locations of engagement move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.

4. (Amended) A roller element according to claim 2, having a surface with at least one raised portion in the form of a continuous band around the

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circumference of the roller element and inclined relative to the direction of media advance.

5. (Amended) A roller element according to claim 4, wherein said at least one raised portion in the form of a continuous band has a substantially uniform dimension in the direction of said axis.

6. (Amended) A roller element according to claim 5 wherein the edges of said at least one raised portion in the form of a continuous band possesses no discontinuities.

9. (Amended) A roller element according to claim 7 wherein the surface of the roller element has non-raised portions adjacent to each raised portion, the area of each raised portion lying within the range 30 to 90% of the total area of the raised portion and its respective adjacent non-raised portions.

11. (Amended) A roller element according to claim 10, which has a helix at each end, the helices having opposed hands.

12. (Amended) A roller element which is arranged to be mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media along the direction of said axis, wherein the roller element comprises one or more rows of balls mounted for rotation in a holder.

13. (Amended) A roller element according to claim 12, comprising two parallel rows of balls.

14. (Amended) A roller element according to claim 12, wherein the balls are mounted in the holder with a degree of play along the length of the rows.

15. (Amended) A roller element which is arranged to be mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that different parts of the surface of the roller element successively engage with and then disengage from the media, wherein a line

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joining the points on the surface of the roller element which disengage from the media at successive moments in time, is inclined relative to the direction of media advance.

16. (Amended) A hardcopy apparatus comprising a roller element according to claim 1, biased against a drive roller member with the media being arranged to advance therebetween.

SEARCHED INDEXED  
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JULY 10 1990

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## REMARKS

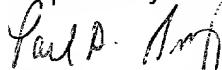
Claims 1-16 remain in the application.

Claims 1, 4-6, 9, and 11-16 have been amended to eliminate the phrase "characterized by," multiple dependencies, any lack of antecedent basis, and awkward language. As such, claims 1, 4-6, 9, and 11-16 have been clarified by amendment for purposes of form. It is respectfully submitted that the amendments to claims 1, 4-6, 9, and 11-16 are neither narrowing nor made for substantial reasons related to patentability as defined by the Court of Appeals for the Federal Circuit (CAFC) in Festo Corporation v. Shoketsu Kinzoku Kogyo Kabushiki Co., Ltd., 95-1066 (Fed. Cir. 2000). Therefore, the amendments to claims 1, 4-6, 9, and 11-16 do not create prosecution history estoppel and, as such, the doctrine of equivalents is available for all of the elements of claims 1, 4-6, 9, and 11-16.

Consideration and allowance of the claims is respectfully requested.

Attached hereto is a marked up version of the changes made to the abstract and the claims by the current amendment. The attached page is captioned "Version With Markings to Show Changes Made."

Respectfully submitted,



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Paul D. Greeley  
Attorney for Applicant(s)  
Registration No. 31,019  
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.  
One Landmark Square, 10<sup>th</sup> Floor  
Stamford, CT 06901-2682  
(203) 327-4500

7-26-01  
Date

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

Please amend the claims as follows:

1. (Amended) A roller element which is arranged to be rotatably mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media at one or more locations along the direction of said axis, [characterised in that] wherein, as the media advances, said one or more locations of engagement move(s) continuously in the direction of said axis throughout at least a substantial part of each rotation of the roller element.
4. (Amended) A roller element according to claim 2 [or 3], having a surface with at least one raised portion in the form of a continuous band around the circumference of the roller element and inclined relative to the direction of media advance.
5. (Amended) A roller element according to claim 4, wherein [the or each band] said at least one raised portion in the form of a continuous band has a substantially uniform dimension in the direction of said axis.
6. (Amended) A roller element according to claim 5 wherein the edges of [the or each band possess] said at least one raised portion in the form of a continuous band possesses no discontinuities.
9. (Amended) A roller element according to claim 7 wherein the surface of the roller element has non-raised [regions] portions adjacent [the or] to each raised [region] portion, the area of [the or] each raised [region] portion lying within the range 30 to 90% of the total area of the raised [region] portion and its respective adjacent non-raised [regions] portions.
11. (Amended) A roller element according to claim 10, which has a helix at each end, the helices having opposed hands.

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12. (Amended) A roller element which is arranged to be mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that the roller element engages a media along the direction of said axis, [characterised in that] wherein the roller element comprises one or more rows of balls mounted for rotation in a holder.

13. (Amended) A roller element according to claim 12, comprising two parallel rows of balls.

14. (Amended) A roller element according to claim 12 [or 13], wherein the balls are mounted in the holder with a degree of play along the length of the rows.

15. (Amended) A roller element which is arranged to be mounted in a media-advancing device with its axis extending transversely of the direction of media advance such that different parts of the surface of the roller element successively engage with and then disengage from the media [characterised in that] ,wherein a line joining the points on the surface of the roller element which disengage from the media at successive moments in time, is inclined relative to the direction of media advance.

16. (Amended) A hardcopy apparatus comprising a roller element according to claim 1 [relatively], biased against a drive roller member with the media being arranged to advance therebetween.